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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12108 (1987): Code of practice for selection of rotary table feeders [MED 6: Continuous Bulk Conveying, Elevating, Hoisting Aerial Ropeways and Related Equipment]



“ज्ञान से एक नये भारत का निर्माण”

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“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

CODE OF PRACTICE FOR SELECTION OF
ROTARY TABLE FEEDER

1. Scope — Lays down code of practice for the selection of rotary table feeders.

2. Application — Rotary table feeders are generally used under vertical bins for handling material which has a tendency to arch, such as damp sand, mineral ores, wood chips, etc. They provide a fairly uniform feed for most materials.

3. Materials — The components coming in contact with sand/minerals being handled by the feeder shall be made from wear resistant metals. Other components of the rotary table feeder shall be fabricated from steel conforming to IS:226-1975 'Specification for structural steel (standard quality) (fifth revision)'.

4. Construction — Reference may be made to Fig. 1 (illustrative only). The rotary table feeder mainly consists of the following:

- a) Housing assembly,
- b) Casing assembly,
- c) Rotary table (disc) assembly,
- d) Deflecting blade assembly,
- e) Setting quadrant and lever assembly, and
- f) Drive assembly.

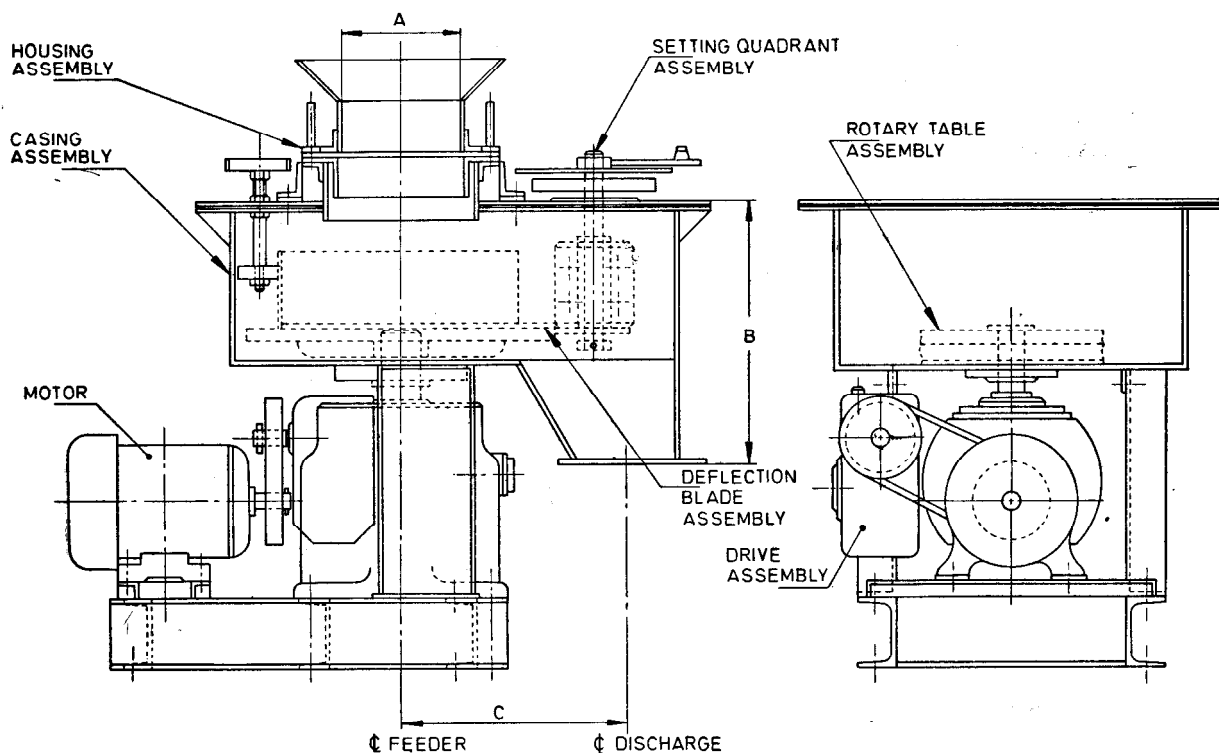


FIG. 1 ROTARY TABLE FEEDER ILLUSTRATION

4.1 The rotary table (disc) is mounted on the vertical output shaft of a worm gear speed reducer which is coupled directly or connected with a V-belt to a two/variable speed motor. If desired by the purchaser, the feeder may be supplied fitted with single speed motor. The rotary table feeder casing is provided with flanged inlet and outlet sections and is made dust tight, if required. The upper inlet flange contains a telescopic sleeve and a feed cut off gate. The telescopic sleeve acts as a feed inlet and can be positioned over the centre of the rotary table at any desired height. There is a deflecting blade which is mounted on a hinge and is so arranged that it can be set above the face of the rotating table at any angle and can be locked in any position on the provided quadrant. The ploughs are normally straight and adjustable vertically. The telescopic sleeves are provided on rotary table feeders of 800 mm and above nominal sizes.

5. Capacity — Raw material fed by gravity falls through the sleeve inlet opening on the rotary table (disc) and forms a cone of material on the table. The deflector blade cuts into the rotating cone of material on the table and deflects part of the material into a receiving hopper or discharge chute. The capacity of the feeder depends on the size of the cone of material on the rotating table, the position of the plough and the speed of the table. The recommended dimensions and maximum capacities of the different sizes of rotary table feeders are given in Table 1 read with Fig. 1.

TABLE 1 RECOMMENDED DIMENSIONS AND CAPACITIES

Nominal Size	Diameter A*	B*	C	kW	Maximum Capacity†
mm	mm	mm	mm		t/h
(1)	(2)	(3)	(4)	(5)	(6)
500	250	400	380	0.5-1	1.0
630	250	475	380	0.5-1	2.0
800	350	475	430	0.75-1.5	4.0
900	350	500	470	0.75-1.5	8.0
1 000	350	500	510	1.5-2	12.0
1 250	450	525	550	1.5-2	18.0
1 600	550-1 000	565	900	5.5-7.5	‡
2 000	960	‡	1 050	5.5-7.5	‡
2 500	‡	‡	1 350	5.5-7.5	‡

*These dimensions are not applicable when the rotary table feeder is without casing assembly and discharge is directly into a conveyor or into a chute or when the feed to the table is not through a central sleeve.

†The capacity based on material with 1.0 t/m³ bulk density.

‡The dimensions and maximum capacities not specified shall be as agreed to between the purchaser and the manufacturer.

6. Speed — Generally, the maximum table speed is 8 rev/min and the minimum table speed is 3 rev/min.

7. Data to be Supplied by the Purchaser and the Manufacturer — For the guidance of the manufacturer, the purchaser shall furnish a list of relevant data of the feeder required by him. Similarly, to enable the purchaser to select a suitable feeder, the manufacturer shall furnish the relevant data about the feeder manufactured by him.

EXPLANATORY NOTE

This standard is based on the information available from the manufacturers and the user organizations of rotary table feeders. The criterion for selection of rotary table feeders given in this standard are expected to provide suitable guidelines to the manufacturers while designing and manufacturing and to the users while selecting the rotary table feeders for their requirements.